TES GDS

Instrument Team Ground Data System Reports

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Aura DSWG
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Overview

- Instrument status
- Current State of Data Production
- Upcoming Releases
- Issues and Other Items

Instrument Status

- The TES instrument is operating normally
  - Global Survey scheduled every other day
  - Special Observations scheduled during 'off' days

- One Hundred Thirty Global Surveys gathered YTD
  - Four Hundred Sixty Global Surveys since launch
- Three Hundred Special Observations gathered YTD
  - SAUNA2, US/Mexico, TC4, WAVES, China/Beijing
  - One Thousand Fifty Special Observations since launch

- Instrument downtime this year:
  - De-ice cycle commanded three times
  - One filter wheel anomaly

- ICS motor current continues to slowly increase; lubricant issue identified prior to launch

Data Production

- Three processing centers
  - SIPS: processes nominal Global Survey and Special Observations
  - SPC: 'special' processing: full filter, larger scale science investigations
  - SCF: supports development and small scale investigations

- SIPS: 260 nodes, 90 TB data storage
- SPC: 40 nodes, 10 TB data storage
- SCF: 40 nodes, 50 TB data storage

Current State of Data Production

- TES GDS software version: 'R10.1', active at SIPS from January '07
  - L1B ESDT Version 2, File version F03_03
  - L2 ESDT Version 3, File version F04_04
- L3 Daily, Monthly Grid and Browse products (initiated July '07)
  - L3 ESDT Version 1, File version F04_04
- L2 Nadir Product Maturity:
  - O3, CO, H2O, ATMT – validated stage 2
  - HDO – validated stage 1
  - CH4 – provisionally validated
- L2 Limb Product Maturity
  - O3, NO2, ATMT – provisionally validated
  - H2O – beta
- Reprocessing completion expected in Nov '07

Level 3 ESDTs

ESDT Short Name	Description of Grid Product
TL3ATD, TL3ATM	Level 3 Atmospheric Temperature;
TL3CH4D,TL3CH4M	Level 3 Methane
TL3COD,TL3COM	Level 3 Carbon Monoxide
TL3H2OD, TL3H2OM	Level 3 Water
TL3HDOD, TL3HDOM	Level 3 Deuterated Water
TL3HNOD, TL3HNOM	Level 3 Nitric Acid
TL3O3D, TL3O3M	Level 3 Ozone
TL3NO2_8, TL3NO2M	Level 3 Nitrogen Dioxide

TES L3 Browse Example - CO

Skip navigator (text browsers)
Starred links open new windows

User Name
guest

Search and Order
User Preferences
Search Creation
Search Status
Results: Data Set
Results: Granule
My Folder
Shopping Cart
Exit to Home

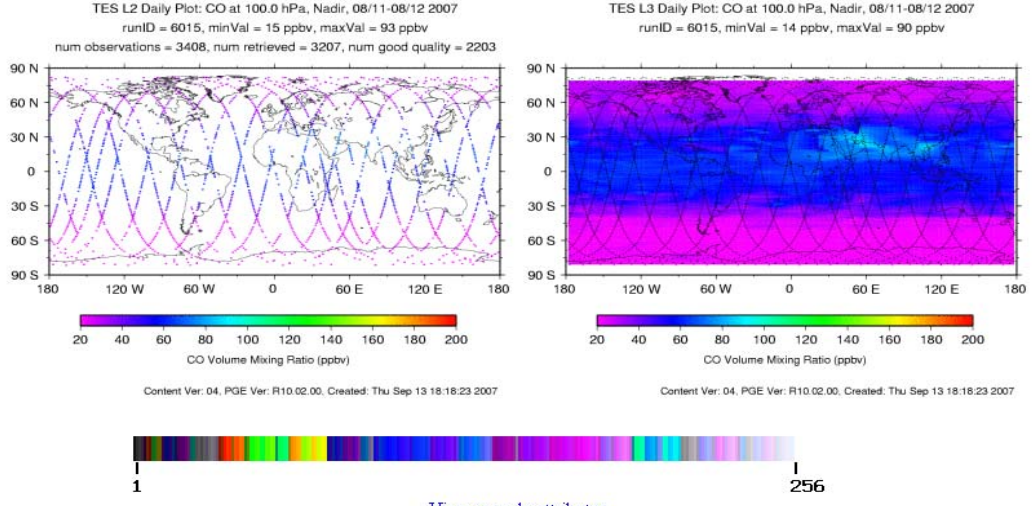
Search types
>Data Search
Detailed Document
Summary Document
AIRS Browse

Help
Tutorial
FAQ
User Manual
User Support Contacts*
Check Order Status
Other EDG Sites
HDF Viewing Tools

Ask a Question
Report a problem
Comment form*

Browse Product

Have a question, a problem, or a comment?* | Help for this page



View granule attributes

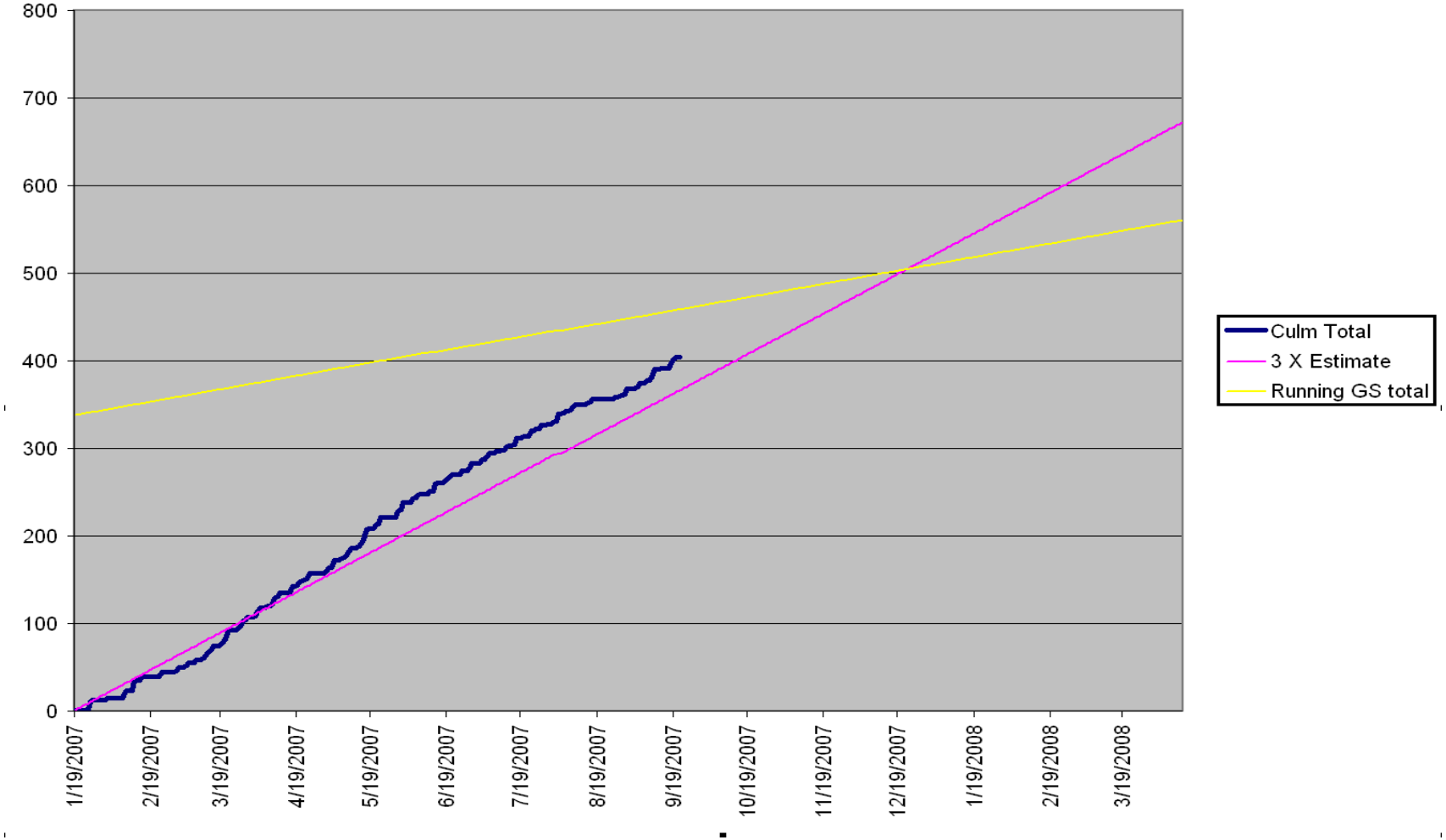
Browse files available

All images share the same label information as the image above.

Download browse HDF file: A Unix-compressed HDF file containing all the browse products. Have your browser *save this directly to a file* - you won't be able to display it, it's not a simple image - and then use your favorite HDF toolkit to extract information from it.

GIFs	Palette
Display GIF image Image #1 *Size 70480* **bytes**	Display Palette Palette 1 *Size 5606* **bytes**
	Display Palette Palette 2 *Size 5606* **bytes**
Display GIF image Image #2 *Size 77877* **bytes**	Display Palette Palette 3

SIPS R10 Reprocessing



Upcoming Releases

- R10.4 update delivery required by GEOS510
  - Only “forward” processing will use GEOS510 in R10
  - We will implement GEOS510 only when GEOS501 is turned off

- R11 delivery scheduled for March ’07
  - L1B, L2 & L3 ESDT Versions to be incremented
  - Reprocess using GEOS510
  - Provide L2 “Supplemental” product files, initial species concentrations from climatology
  - L1B
    - Calibration adjustment to account for apparent control laser frequency drift
  - L2
    - Surface temperature retrievals improved
    - Constraints improved and will lead to less distortion in ozone near tropopause
    - Convergence criteria tightened to make sure we reach best possible solution

Accessing TES data

- Documentation & IDL data readers available from
  - http://eosweb.larc.nasa.gov/PRODOCS/tes/table_tes.html
- IDL readers provided early in each release, and are backward compatible
  - L1B
  - L2
  - L3
- Documentation provided
  - Data Product Specification
  - Level 2 User's Guide
  - Data Quality Statement
  - Data Versioning

Issues & Other Items

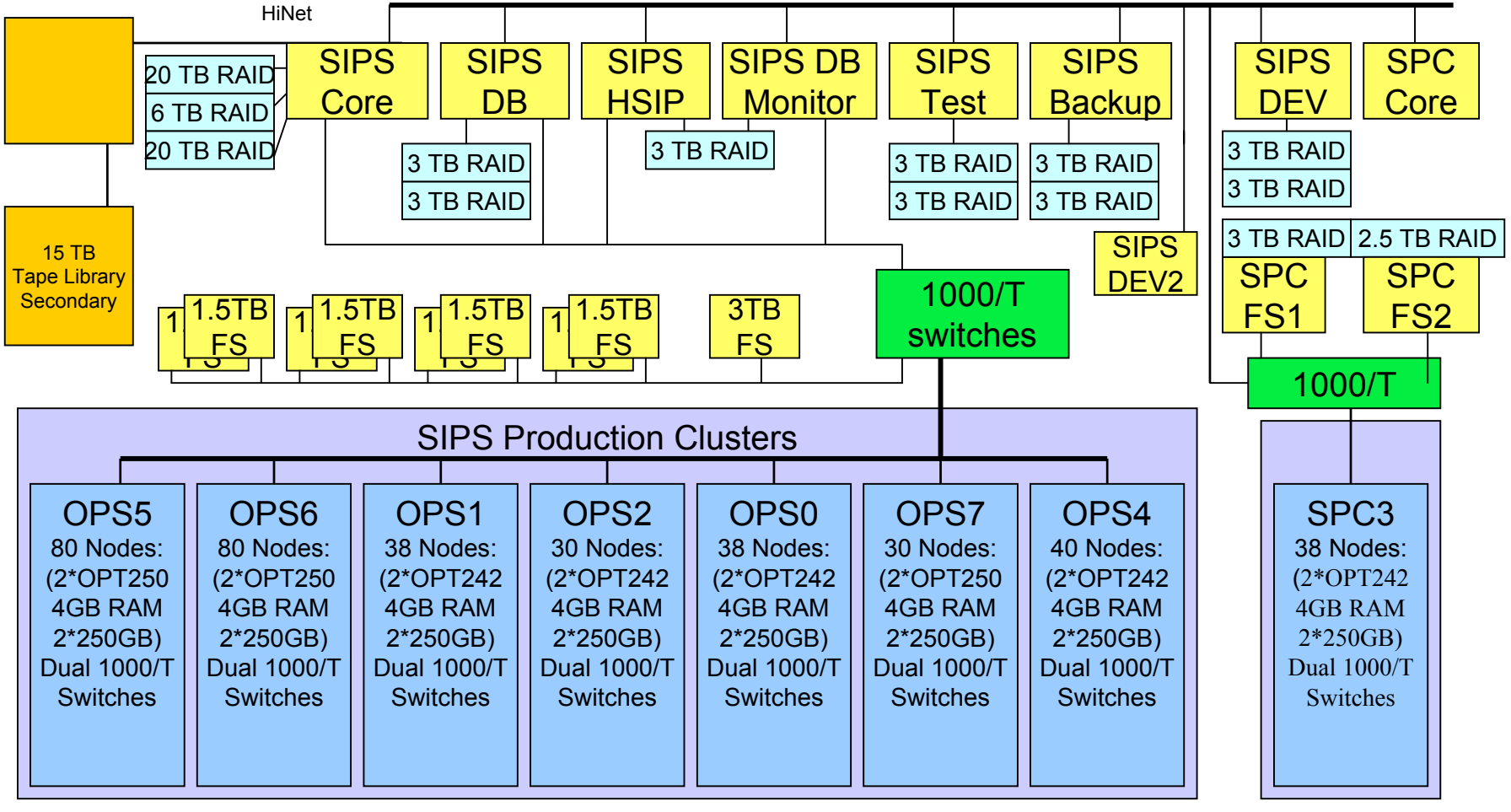
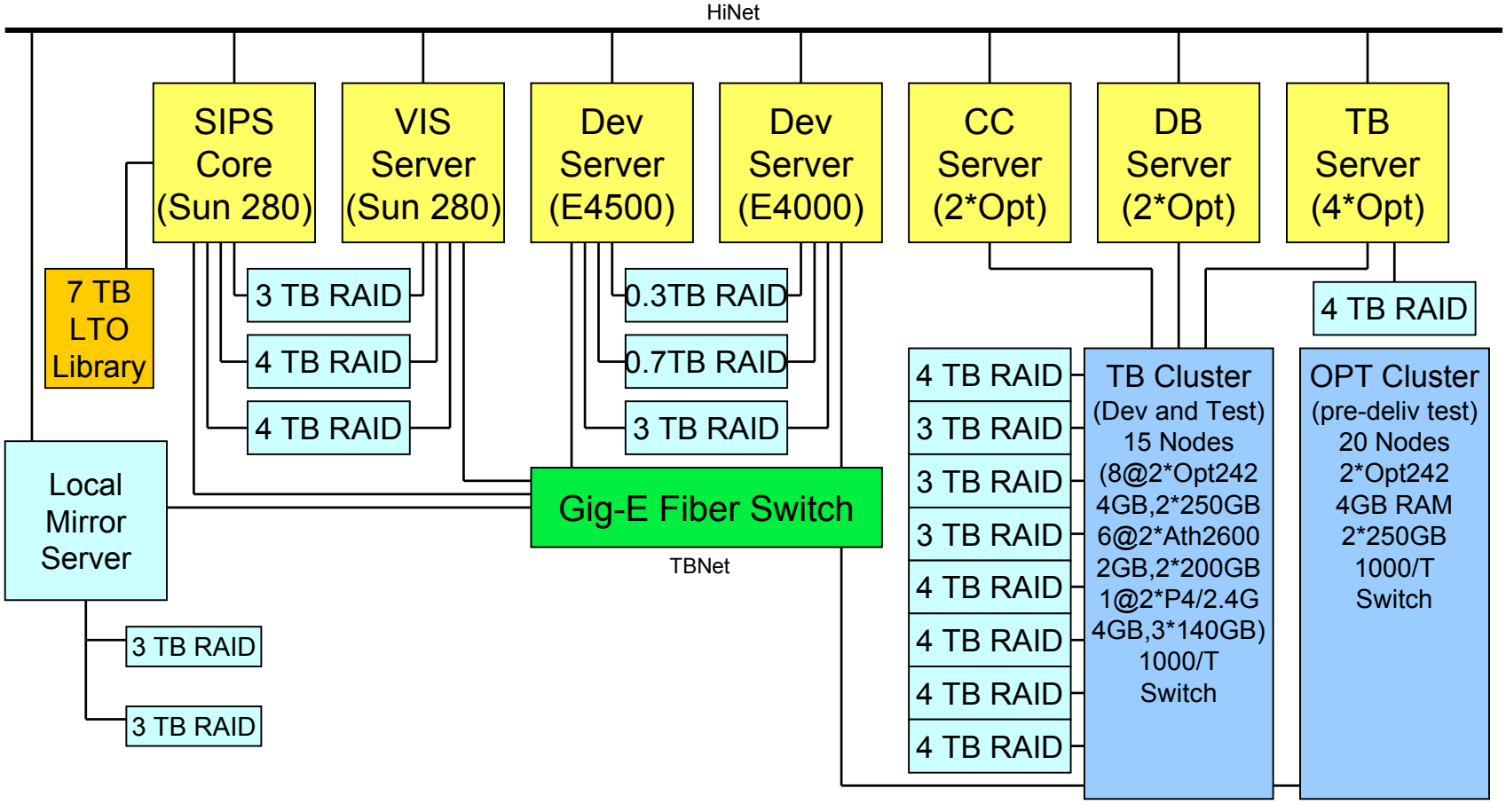
- Often need to reorder GMAO data
- Uncertainty in the scheduling of GEOS GMAO 5.1.0
- Future products produced from joint retrievals from multiple instruments
- ASDC listing of holdings provides us with a much improved ability to see what is really at the DAAC

Backup Slides

National Aeronautics and Space Administration
Jet Propulsion Laboratory
California Institute of Technology

Tropospheric Emission Spectrometer

TES SIPS Hardware Diagram



TES SCF Hardware Diagram